EXHIBIT V

TESTIMONY OF MARK J. BUBEL, SR.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

AQUA PENNSYLVANIA WASTEWATER, INC.

DOCKET NO. A-2019-3015173

AQUA STATEMENT NO. 4

DIRECT TESTIMONY OF
MARK J. BUBEL, SR.

With Regard To
Operations
Combined System
Capital
Technical Fitness
DEP Requirements

March 3, 2020

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Mark J. Bubel, Sr. My business address is 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010.

Q. By whom are you employed and in what capacity?

A. I am employed by Aqua Pennsylvania, Inc., ("Aqua PA") as a Project Engineer III.

Q. Please provide a brief description of your education and work experience.

A. I received a Bachelor of Science Degree (B.S.) in Civil Engineering in 1980 from Lehigh University and a Master's Degree in Civil Engineering (M.C.E.) with a concentration in Environmental Engineering in 1983 from Villanova University. I have worked in various engineering roles and have over 38 years of experience in environmental engineering related to municipal and industrial wastewater treatment and operations. I have worked at Aqua since 2003 in roles related to wastewater treatment facilities including planning, design, start-up, and operational troubleshooting. I am a Registered Professional Engineer in Pennsylvania, Delaware, Maryland, North Carolina, and Florida. I am also a Licensed Water and Wastewater Operator in Pennsylvania.

Q. Have you previously testified before the Public Utility Commission ("PUC" or the "Commission")?

A. Yes. I provided testimony in Aqua Pennsylvania Wastewater, Inc.'s ("Aqua" or the "Company") New Garden, Limerick, East Bradford, Cheltenham and East Norriton

Public Utility Code Section 1329 Application proceedings at Docket Nos. A-2016-2580061, A-2017-2605434, A-2018-3001582, A-2019-3008491, and A-2019-3009052, respectively. I also provided testimony in Aqua PA and Aqua's most recent base rate case proceeding at Docket Nos. R-2018-3003558 and R-2018-3003561.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is as follows: (1) to address the operation of the Delaware County Regional Water Quality Control Authority ("DELCORA") Wastewater System ("System") following closing; (2) to explain the capital requirements of the System; (3) to describe Aqua's technical fitness to operate and maintain the System.

Q. Are you sponsoring any Exhibits with the Company's filing?

A. Yes. Attached to my testimony as Appendix A is DELCORA's capital plan that Aqua will be implementing.

II. OPERATIONS

Q. Please state how many miles the System in Delaware County is from Aqua's existing service territory in Delaware County.

A. Aqua and DELCORA have wastewater systems in close proximity to each other. Additionally, Aqua PA provides water service to several of DELCORA's retail end user customers. The table below shows the distance in miles between Aqua's closest systems and DELCORA's Western Regional Wastewater Treatment Plant ("WRTP"):

Delaware County:

Aqua System	Distance (miles)
Media Wastewater Treatment Facility ("WWTF")	6
Willistown Woods WWTF	12
Aqua Headquarters to DELCORA Main Office	14

Q. Please state how many miles the System in Chester County is from Aqua's existing service territory in Chester County.

A. The table below shows the distance in miles between Aqua's closest treatment plants and DELCORA's Pocopson service area and Springhill Farms service area:

Chester County (Pocopson):

Aqua System	Distance (miles)
Bridlewood WWTF	3
Brandywine River Estates WWTF	2

Chester County (Springhill Farms):

Aqua System	Distance (miles)
Penn Oaks WWTF	3
Bridlewood WWTF	4

Q. Please state the elevations of the DELCORA WWTFs, the City of Philadelphia Water Department ("PWD") Southwest Water Pollution Control Plant ("SWPCP"), and Aqua's Requested Territory.

A. DELCORA WWTFs:

- WRTP: elevation generally varies between EL 2.0 and EL 5.0.
- Pocopson Preserve (Corinne Village): elevation generally varies between EL 303 and EL 383.

- Pocopson Riverside (Sheeder Tract): elevation generally varies between EL 178 and EL 240.
- Springhill Farms: elevation generally varies between EL 343 and EL 346.

PWD SWPCP: elevation generally varies between EL 6.0 and EL 11.

Requested Territory: The Requested Territory elevation as set forth in Exhibits A2 through A7 generally varies as follows:

- Exhibit A2 (Sheet 1 Pocopson)
  - Pocopson Preserve (Corrine Village) – EL 327 to EL 374
  - Pocopson Riverside (Sheeder Tract) EL 209 to EL 288
- Exhibit A3 (Sheet 2 Springhill Farms) – EL 355 to EL 374
- Exhibit A4 (Sheet 3 Edgmont) – EL 262 to EL 399
- Exhibit A5 (Sheet 4 Rose Valley Borough) – EL 100 to EL 182
- Exhibit A6 (Sheet 5 Chester City)
  - Westerly Service Area Border EL 30
  - Northerly Service Area Border EL 79
  - Easterly Service Area Border EL 34
  - Southerly Service Area Border EL 11
- Exhibit A7 (Sheet 6 Force Main) – EL 12 to EL 22.

Q. Will the System be physically interconnected with Aqua's system or be operated as a standalone system?

A. The System is presently intended to be operated as a standalone system within Aqua's existing service territory.

Q. Please describe how Aqua will integrate the operation of the System into its current operations.

A. As described in more detail in the Direct Testimony of Marc A. Lucca (Aqua Statement No. 1), Aqua's headquarters are located in its southeastern division office and the operation of the System will be overseen from that office. Aqua has agreed to keep the DELCORA office and operations centers in the City of Chester for a period of 25 years following closing of the Proposed Transaction.

Q. Are the DELCORA customers to be obtained in the Proposed Transaction currently Aqua PA water customers?

A. Yes. Some of the DELCORA customers are currently also Aqua PA water customers. Customers will be combined Aqua water and wastewater customers after closing of the Proposed Transaction in Pocopson Preserve (Corinne Village), Pocopson Riverside (Sheeder Tract), Rose Valley Borough and Edgmont Township.

Q. Will other Aqua PA employees assist in the operation of the System, if needed?

A. Yes. Aqua PA employees will be able to assist, if needed, and will provide support through engineering and field service functions.

Q. Please explain the support services Aqua Services, Inc. ("Aqua Services") will provide to the DELCORA customers and the System.

A. Aqua Services provides expertise in a variety of areas to the water and wastewater subsidiaries. Aqua Services will provide support to the operation of the System in accounting and financial, administrative, communications, corporate secretarial, customer service and billing, engineering, fleet services, human resources, information systems, operations, regulatory compliance, rates and regulatory, risk management, water quality, legal, and purchasing, contracts and sales of real estate. These services would be in addition to and in support of the services provided by DELCORA's existing employees.

Q. Is the System similar to other wastewater systems owned and operated by Aqua?

A. Yes. The WRTP and Springhill Farms WWTF are both activated sludge wastewater treatment facilities similar to Aqua's Bridlewood, Media, and Penn Oaks WWTFs. Pocopson Preserve (Corinne Village)[1] and Pocopson Riverside (Sheeder Tract)[2] are treatment lagoon systems, similar to Brandywine River Estates, Peddlers View, which are spray irrigation effluent disposal and New Daleville, Bridlewood, Sage Hill, and Honeycroft, which are drip irrigation effluent disposal.

III. COMBINED SYSTEMS

Q. Are there combined wastewater and stormwater systems within the System and how will these be addressed post-closing of the Proposed Transaction?

A. Yes. The City of Chester has combined sewers system pipe. A combined system is where sanitary wastewater and stormwater flow into the same pipes and get treated at the

[1] Pocopson Preserve is a treatment lagoon system with drip irrigation effluent disposal.
[2] Pocopson Riverside is a treatment lagoon system with spray irrigation effluent disposal.

WRTP. Aqua has included a tariff supplement as Exhibit G to the Application. Aqua's current tariff includes a definition of wastewater that applies to combined sewers.

Q. How will Aqua address the combined systems?

A. Aqua will continue to implement DELCORA's Long Term Control Plan ("LTCP"), which is currently under review by the Pennsylvania Department of Environmental Protection ("DEP") and the Environmental Protection Agency ("EPA"), in compliance with the existing Consent Decree requirements.

IV. CAPITAL PROJECTS

Q. Historically, what has been the relationship between DELCORA and PWD?

A. As explained in the direct testimony of Mr. Willert (Aqua Statement No. 5), the DEP required that wastewater systems within southern Delaware County not operate individual treatment plants, but should instead tie into larger conveyance systems that would send wastewater flows to the DELCORA WRTP or to PWD's Southwest Treatment Facility. DELCORA constructed a pipeline in the early 1970s that accepts wastewater flows from the large municipal authority's transmission lines and conveys that wastewater to PWD for flows emanating from the Eastern Region. DELCORA and PWD entered into an agreement in 1974 that provides for DELCORA to send flows to PWD.

Q. What are the future plans for the System in relation to PWD?

A. Aqua intends to upgrade DELCORA's WRTP and facilities to divert flow from Eastern Region to the WRTP. Aqua plans to complete these upgrades prior to the expiration of the existing agreement with PWD, which ends in 2028.

Q. How will wastewater be treated after the relationship between Aqua and PWD ends?

A. As stated above, Aqua will upgrade its existing facilities to ensure adequate capacity to divert flow from the Eastern Region to the WRTP. This will require the construction of a new pipeline, upgrading the three existing pump stations to convey flow, construction of equalization storage tanks, and upgrading the WRTP by the construction of an increased capacity activated sludge treatment system as well as a wet weather flow treatment.

Q. What are the benefits of not renewing the treatment agreement with PWD and, instead, installing a new pipeline, completing pump station upgrades, adding equalization storage, and upgrading the WRTP?

A. These planned capital projects will remove significant and increasing costs from DELCORA's customers who would otherwise have to contribute to PWD's LTCP. Currently, DELCORA estimates that contributions to PWD's LTCP will be approximately $606 million over the next 22 years. Aqua estimates the cost of completing the WTRP plant expansion and force main installation to be approximately $450 million. The elimination of the treatment expense to PWD will allow DELCORA to control its own destiny and offset the potential risk of future increases. By investing

capital now to expand the WRTP, Aqua will be able to better control treatment costs to the benefit of the acquired DELCORA customers.

Q. How will the Proposed Transaction further those benefits?

A. The Proposed Transaction will allow Aqua to bring its extensive experience with large scale replacement projects to the table and will be able to leverage Aqua PA and Aqua's purchasing power for the benefit of the DELCORA customers.

Q. In addition to the construction of the new pipeline and upgrades to the WRTP, is Aqua planning any capital projects over the next 10 years?

A. Yes. Aqua will implement DELCORA's planned capital program for routine plant upgrades, collection system work and pump station upgrades. Some of those projects include collection system and pump station upgrades as well as more routine upgrades to the WRTP based on the useful life of various system components. These capital projects are set forth in Appendix A to my testimony.

Q. Do you foresee any other projects that would be required in the immediate future, and does Aqua plan any other physical, operational, and managerial changes after closing of the Proposed Transaction?

A. Replacement and upgrade of facilities will continue beyond Aqua's capital plan based on facility age and expected facility life span. As mentioned above, there are planned capital improvements. The System will be operated under Aqua's Southeastern Division, while

maintaining the office and operations centers currently in place in DELCORA's service territory.

V. ENVIRONMENTAL COMPLIANCE

Q. Are any current environmental noncompliance issues for the System.

A. Yes. Environmental compliance issues are discussed in the direct testimony of Mr. DiSantis (Aqua Statement No. 7).

Q. How will Aqua address these noncompliance issues?

A. Aqua will work with the DELCORA operations and engineering staff to address environmental compliance issues, such as sanitary sewer overflows and similar compliance issues. DELCORA has an experienced team of wastewater operations, engineering, and support staff, and the merger of the expertise and knowledge of Aqua and DELCORA employees will allow for quality service to be provided to all customers.

VI. TECHNICAL FITNESS

Q. Do you believe Aqua is technically fit to own and operate the System?

A. Yes. Aqua PA and Aqua are Class A utilities that already have certificates to operate throughout the Commonwealth and have acquired many water and wastewater systems in the last three decades. Aqua will provide quality and reliable wastewater service to the DELCORA customers via Aqua's operational expertise as well as engineering support local to the System. Aqua has expertise in troubleshooting mechanical equipment as well as wastewater treatment processes, as well as operating wastewater collection,

conveyance, and treatment systems. Aqua strives to ensure that its collection, conveyance, treatment, and pumping systems provide continuous, safe and reliable service. Aqua has worked with the Commission and statutory advocates to acquire and improve troubled wastewater systems (e.g., Washington Park Wastewater, Docket No. A230550F2000).

In addition, Aqua was appointed receiver for the North Heidelberg Sewer Company system in Berks County by the Commission effective March 5, 2018. Aqua took over daily wastewater operations of the facility serving approximately 274 customers on March 5, 2018. Aqua has provided operations service and improvements to the system to ensure quality and reliable service.

Q. Does Aqua have emergency preparedness measures and safety programs in place?

A. Yes. Aqua currently has emergency preparedness measures in place in order to ensure security and continued service in emergency circumstances.

Aqua and Aqua PA maintain safety programs that entail basic safety training in all the major categories operators and management personnel are required to complete including, but not limited to, confined space training, back and lifting safety, work zone traffic control, excavation safety awareness, and fall protection training. DELCORA's former customers will be the beneficiaries of Aqua's safety program and procedures.

Q. Can Aqua provide adequate wastewater collection, treatment, or disposal capacity to meet present and future customer demands, including those of the DELCORA customers?

A. Yes. Aqua can provide adequate wastewater service for present and future customers, including the DELCORA customers. As discussed above, Aqua will be implementing capital projects to expand the capacity of the WRTP to take flows from the Eastern region. Aqua will continue to make improvements to its system to ensure any future customer demands are met.

VII. CONCLUSION

Q. Does this conclude your testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of this proceeding.

Printed: 2/28/2020

Cash Flow Projections
Capital Projects
as of January 2020

3%

	Location	Project Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Reserved	Reserved	Total
		Admin Building Roof Replacement	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
Buildings	B-1 (Grit)																									
		Grit Removal Renewal	$ -	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 500,000**
		New Grit Tank Screen Rehab	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000			$ -	$ -					**$ 500,000**
		Blower Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ 1,032,171	$ 1,032,171	$ 1,032,171		$ -	$ -					**$ 3,096,514**
	B-2 (Control)																									**$ -**
		Boiler	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ 157,500	$ 960,750	$ -	$ -					**$ 1,118,250**
	Laboratory																									**$ -**
		Lab Fans	$ -	$ -	$ -	$ -	$46,739	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 46,739**
	B-3 (Incinerator)																									**$ -**
		BFP Control Room HVAC	$ -	$ 31,159	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 31,159**
		BFP Odor Control	$ 902,145	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 902,145**
		HVAC Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -				$ -	$ 1,500,000					**$ 1,500,000**
		Boilers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		CEMS	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 1,400,000**
		Belt Press Overhaul or Replacement	$ -	$ -	$ -	$ 1,690,256	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 1,690,256**
		Cl2 Room Evaporators (Considering Upgrades)	$ -	$ -	$ 85,000	$ -	$ -	$ -	$ -	$ 675,000	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 760,000**
		Chlorine Tank Storage Room (piping, Valves)	$ -	$ -	$ -	$ 125,200	$ -	$ -	$ -	$ -	$ 167,500	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 292,700**
		Belt Press Room (Upgrades to BPs)	$ -	$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 85,000**
		Dry Ash Handing System Renewal	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 200,000**
		Incineration (Annual, 2-year Contract)	$ 218,545	$ 225,102	$ 231,855	$ 238,810	$ 245,975	$ 253,354	$ 260,955	$ 268,783	$ 276,847	$ 285,152	$ 293,707	$ 302,518	$ 311,593	$ 320,941	$ 330,570	$ 340,487	$ 350,701	$ 361,222	$ 372,059	$ 383,221	$ 394,717			**$ 6,267,114**
		Incinerator Refractory (bricks)	$ 41,792	$ -	$ 44,337	$ -	$ 47,037	$ -	$ 49,902	$ -	$ 52,941	$ -	$ 56,165	$ -	$ 59,585	$ -	$ 63,213		$ 67,062		$ 71,146		$ 75,478			**$ 628,659**
		Incinerator Castings (Arms, Teeth, etc.)	$ 41,792	$ -	$ 44,337	$ -	$ 47,037	$ -	$ 49,902	$ -	$ 52,941	$ -	$ 56,165	$ -	$ 59,585	$ -	$ 63,213		$ 67,062	$ 63,214						**$ 545,249**
		Cake Pump Redundancy & Rebuild	$ -	$ 1,600,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 1,600,000**
	B-4 (Thickening)	See 2020 Project Below																								**$ -**
		See 2020 Project Below	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	B-5 (Maintenance)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	B-5 (Engineering)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	B-6 (Blower)																									**$ -**
		Aeration Blower Overhauls	$ 202,592	$ -	$ -	$ -	$ 228,019	$ -	$ -	$ -	$ 256,637	$ -	$ -	$ -	$ 288,847	$ -				$ 325,100	$ -					**$ 1,301,194**
		Blower - Replace Controls	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	B-7 (Garage)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Maintenance Office (trailer)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
Pump Stations	EPS-1 + FM																									**$ -**
		EPS-1 Demo	$ -	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 200,000**
		Additional Property Purchase	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	PS-1 & PS-2 (Primary Sludge)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	PS-3 (Activated Sludge)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	PS-4 (Chlorine Bldg. & Utility Water)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	PS-5 (Activated Sludge)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
Tanks	T-1 & T-2 (Grit)																									**$ -**
		See Building B-1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	T-3 to T-10 (Primary Clarifiers)																									**$ -**
		Tank Rebuilds	$ 1,213,635	$ -	$ -	$ 1,326,171	$ -	$ -	$ 1,449,143	$ -	$ -	$ 1,583,518	$ -	$ -	$ 1,730,353	$ -		$ 1,890,803		$ -	$ 2,066,132					**$ 11,259,756**
		Pump Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	T-11 to T-14 (Aeration)																									**$ -**
		Aeration Panels	$ -	$ -	$ -	$ 1,384,234	$ -	$ -	$ 5,375,666		$ -	$ -	$ -	$ -	$ -	$ -				$ 7,224,446	$ 1,916,104					**$ 15,900,450**
		New Tank - Plant Expansion (new project)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	T-15 to T-18 (Secondary Clarifiers)																									**$ -**
		Secondary Clarifier Rebuilds	$ -	$ -					$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 418,532	$ 431,088	$ 444,021	$ 457,341				**$ 1,750,982**
	T-27 (Secondary Clarifier)																									**$ -**
		Secondary Clarifier Rebuilds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ 2,800,000		$ -	$ -					**$ 2,800,000**
		New Secondary Clarifier - Plant Expansion (New Project)	$ 500,000	$ 5,500,000	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 9,500,000**
	T-19 to T-20 (Post Aeration)																									**$ -**
		Tank Structure Modification (New Project)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	T-21 to T-22 (Chlorine Contact)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	T-23 to T-26 (inside B-4)																									**$ -**
		T-23 and T-24 Replacement (New Project)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	EB-2 & ET-1 to ET-4 (Sludge Storage)																									**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Hauled Waste Acceptance Facility																									**$ -**
		Grease Receiving Renewal	$ -	$ -	$ -	$ -	$ -	$ 750,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 750,000**
Projects	General / Multiple																									**$ -**
		Tank Structural Repair	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Solids Handling Upgrades	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**

		Location	Project Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Reserved	Reserved	Total
WRTP	Electrical	Substation #1																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Substation #2 (old sub-2 & sub 3)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Substation #3 (old sub-4)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Primary Switchgear																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Plant Electrical Distribution																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		General/Multiple																									
			Rehab Electrical Switchgear & Subs	$ 1,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ 750,000				$ 2,250,000
	Misc.	Pit 1 (Valve)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Pit 2 (Mag Meter)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Pit 3 (Mag Meter)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Trucked Waste Receiving Stations																									
			Hauled Waste ID Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
			RAD Screening	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Pit 5 (Potable Water)																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Bulkhead																									
			Inspection and Repairs	$ -	$ -	$ 49,524	$ -	$ -	$ -	$ -	$ 63,207	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ 112,731
			WRTP Bulkhead Coating (may move to WRTP Outfall Extension)		$ -	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ 250,000
		S-2 (Plant Outfall)																									
			WRTP Outfall Extension		$ -	$ 4,500,000	$ 4,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ 9,000,000
		Ash Lagoon Effluent Box																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ -
		Utility Water																									
			Utility Water Shutoff, Valves, VFDs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ -
		General Valves & Equipment																									
			WRTP Gates - Aeration Gates, Chlorine Tanks, Grit, Primary Gates	$ 3,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ 3,000,000
			Valve Replacement & Maintenance Program		$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ 202,101	$ 1,561,889	$ 1,608,746				$ -	$ -	$ -	$ -			$ 3,372,737
		Yard Piping																									
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ -	$ -			$ -
		Equipment & Vehicles																									
			Equipment	$ 534,456	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ 47,708	$ 191,703	$ -				$ -	$ -	$ -	$ -			$ 773,867
			Vehicles	$ 386,936	$ 71,288	$ 476,598	$ 75,629	$ 288,814	$ -	$ -	$ -	$ 741,647	$ 173,017	$ 270,917	$ -	$ 264,263	$ 101,640				$ 1,067,657	$ 107,830					$ 4,026,236
	2019 Projects	**Roof Replacement**																									
			EPS-1 Building Roof	$ 11,435	$ 23,556	$ 12,131	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 47,122
			B-3 Building Roof	$ 78,614	$ 161,945	$ 83,402	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 323,961
			B-4 Building Roof	$ 71,468	$ 147,223	$ 75,820	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 294,510
			PS-1 & PS-2 Building Roof	$ 6,480	$ 13,348	$ 6,874	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 26,702
			PS-3 Building Roof	$ 18,820	$ 38,769	$ 19,966	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 77,554
			PS-4 Building Roof	$ 9,529	$ 19,630	$ 10,109	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 39,268
			PS-5 Building Roof	$ 11,435	$ 23,556	$ 12,131	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 47,122
			Aeration Blower Building Roof	$ 28,587	$ 58,889	$ 30,328	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 117,804
			Admin Building Roof	$ 25,252	$ 52,019	$ 26,790	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 104,060
																											$ -
		B-4																									$ -
			T-26 Grease Handling Feed to Incinerator	$ 569,262	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 569,262
			ET-1, ET-2, ET-3, ET-4 Concrete Tank Rehab	$ 500,000	$ 1,112,025	$ 679,636	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 2,291,660
			Relocate Gravity Belt Thickener in B-4		$ 392,595		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 392,595
			B-4 Odor Control System and B-4 Modifications	$ -	$ 530,537	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 530,537
																											$ -
		B-3																									$ -
			Ash Handling System Upgrades	$ -	$ 1,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 1,500,000
																											$ -
		Site																									$ -
			Hauled Waste Kiosk and Upgrades		$ 212,296	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 212,296
																											$ -
	2019 Bond	**Site**																									$ -
			Hauled Waste Office	$ -	0	$ -	$ 1,380,933	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 1,380,933
			Miscellaneous Energy Upgrades - Ph. 2	$ 1,075,621	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 1,075,621
			Grit Handling	$ -	$ -	$ 274,893	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 274,893
			Substation #2 Replacement	$ -	$ -	$ 822,595	$ 847,273	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 1,669,868
			LTCP Yard Piping	$ -	$ -	$ -	$ 564,134	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 564,134
																											$ -
	Future Bond																										$ -
			Building B-2 and Laboratory	$ -	$ -	$ -	$ -	$ 1,258,664	$ 2,592,847	$ 1,335,316	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -			$ 5,186,827
																											$ -

	Location	Project Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Reserved	Reserved	Total
Multiple Systems		Act 537 Plan, Ridley Grouting, Chester E Grouting, Chester W Grouting and Interceptor work	$ -	$ -	$ -	$ -	$ -	$ 2,530,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 2,530,000**
		Paving - Annual Contract	$496,665	$ 522,506	$ 548,347	$ 574,188	$ 600,029	$ 625,870	$ 651,711	$ 677,522	$ 703,393	$ 729,234	$ 755,075	$ 780,916	$ 806,757	$ 832,598	$ 859,267	$ 886,790	$ 915,194	$ 944,508	$ 974,762	$ 1,005,984	$ 1,038,206			**$ 15,929,522**
		Sewer System Repair - Annual Contract	$ 1,423,313	$ 1,496,079	$ 1,568,845	$ 1,641,611	$ 1,714,377	$ 1,787,143	$ 1,859,909	$ 1,932,675	$ 2,005,441	$ 2,078,207	$ 2,150,973	$ 2,223,739	$ 2,296,505	$ 2,369,271	$ 2,444,343	$ 2,521,793	$ 2,601,697	$ 2,684,133	$ 2,769,182	$ 2,856,925	$ 2,947,448			**$ 45,373,609**
		Siphons Rehab	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -	$ 70,000	$ 650,000	$ 650,000	$ 650,000	$ 650,000					**$ 2,670,000**
		Roof Replacement	$ -	$ -	$ -	$ -	$ -	$ 1,227,436	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 1,227,436**
		Long Range Asset Management/Replacement (see tab)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ 5,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 4,000,000	$ 5,000,000	$ 10,000,000	$ 10,000,000			**$ 74,000,000**
Western Collection System	Chester System	Chester Pump Station & Forcemain																								**$ -**
		CPS Upgrade	$ -	$ -	$ 623,187	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 623,187**
		CPS Grit System Overhaul	$ -	$ -	$ -	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 500,000**
		Chester Pump Station Bar Screen	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Broomall Street Pump Station & Forcemain																								**$ -**
		Repairs and Maintenance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ 200,000	$ -				$ -	$ -					**$ 200,000**
		8th Street Pump Station & Forcemain																								**$ -**
		Repairs and Maintenance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$33,598	$ 25,000	$ -	$ -	$ -	$ -				$ -	$ -					**$ 58,598**
		Feltonville Pump Station & Forcemain																								**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Eddystone Pump Station & Forcemain																								**$ -**
		Eddystone Bar Screen (5)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -				$ -	$ 31,000	$ 139,000	$ 139,000			**$ 309,000**
		Central Delaware County Force Main (west)															$ 250,000	$ 2,600,000	$ 2,600,000	$ 2,600,000						**$ 8,050,000**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Marcus Hook	Marcus Hook Pump Station & Forcemain																								**$ -**
		Repairs and Maintenance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Pump Station Replacement	$ -	$ 125,157	$ 294,456	$ 2,275,625	$ 2,343,894	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 5,039,131**
		Viscose Village Pump Station & Forcemain																								**$ -**
		Repairs and Maintenance	$ -	$ 142,576	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -				$ -	$ -					**$ 142,576**
		Delaware Avenue Ejector Station & Forcemain																								**$ -**
		Marcus Hook Delaware Ave. Ejector Station	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 67,733	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ 67,733**
		New Marcus Hook Replacement	$ -												$ 2,540,797	$ 7,065,957	$ 7,277,936									**$ 16,884,690**
	Trainer	Price Street Pump Station & Forcemain																								**$ -**
		Pump Rebuild	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ 60,000	$ -				$ -	$ -					**$ 60,000**
		Smith Street Pump Station & Forcemain																								**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Chester Ridley Creek	Chester-Ridley Creek Pump Station & Forcemain																								**$ -**
			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Edgmont	Collection System																								**$ -**
		Edgmont Collection System Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Edgmont Collection System	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Edgmont Vactor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
		Edgmont Grinder Pumps	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					**$ -**
	Misc.	Marcus Hook Collection System 2-5 Year Repairs (CEA Studies)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 552,000	$ 88,000	$ -	$ -	$ -				$ -	$ -					**$ 640,000**
		Marcus Hook Collection System 5-10 Year Repairs (CEA Studies)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ 31,500	$ -	$ -				$ -	$ -					**$ 31,500**

		Location	Project Name	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Reserved	Reserved	Total
Eastern Service Area (Central)		Darby Creek Pump Station & Forcemain																									$ -
			DCPS - Upgrades	$ -	$ -	$ 366,122	$ -	$ -	$ -	$ -	$ -	$ 1,964,443	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 2,330,565
			DCPS Bar Screen	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		Muckinipates Pump Station & Forcemain																									$ -
			Muckinipates PS Upgrade	$ -	$ -	$ -	$ -	$ 627,082	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -				$ -	$ -					$ 1,027,082
			Muck 15 KVA Switchgear	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 75,000
		Central Delaware County Pump Station & Forcemain																									$ -
			Central Delco PS - Upgrade	$ -	$ -	$ -	$ 1,295,763	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 1,295,763
			CDPS Controls	$ -	$ -	$ -	$ -	$ -	$ 256,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 256,000
			CDPS (Pump Rebuild)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
			CDPS Bar Screen	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
	Misc.		Eastern Air Release Valves (phase work)	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 250,000
			Eastern Force Mains	$ 1,000,000	$ -	$ -	$ -	$ 250,000	$ 2,600,000	$ 2,600,000	$ 2,600,000	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 9,050,000
			Eastern Force Main Rehab - WRTP to Darby					$ -	$ -	$ 12,000,000	$ 12,000,000	$ 12,000,000	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 36,000,000
	Future Bond	Remote Operations																									$ -
			Remote treatment plants upgrades and rehab					$ 927,925	$ 955,762	$ 984,435	$ 1,013,968	$ 1,044,387															$ 4,926,478
																											$ -
																											$ -
	Rose Valley	WWTP																									$ -
			Rose Valley EQ Tank	$ -	$ -	$ -	$ 2,252,244	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 2,252,244
		Brookhaven Road Pump Station & Forcemain																									$ -
			Pump Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ -				$ -	$ -					$ 100,000
		Old Mill Pump Station & Forcemain																									$ -
			Old Mill Pump Station Upgrade		$ 909,838	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 1,159,838
		Longpoint Lane Ejector Station & Forcemain																									$ -
			Pump Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 30,000
		Forestview Siphon Station & Forcemain																									$ -
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					0
		Collection System																									$ -
			Old Mill Force Main Replacement			$ 2,082,519																					$ 2,082,519
			Rose Valley Vernon Run Repair	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
	Pocopson	Riverside WWTP																									$ -
			Repairs and Maintenance	$ 168,826	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 226,888	$ -	$ -	$ -				$ -	$ -					$ 395,715
		Collection System																									$ -
			Repairs and Maintenance	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ 287,416					$ 387,416
	Springhill Farms	WWTP																									$ -
			Spring Hill Farms	$ 650,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ 650,000
		Collection System																									$ -
				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -				$ -	$ -					$ -
		TOTAL Existing Assets - 2019 Capital Plan		**$ 14,962,200**	**$ 14,995,092**	**$ 17,169,801**	**$ 20,922,071**	**$ 9,075,591**	**$ 13,678,412**	**$ 27,416,940**	**$ 19,728,889**	**$ 19,549,775**	**$ 5,426,129**	**$ 4,397,890**	**$ 3,386,381**	**$ 14,012,090**	**$ 23,284,468**	**$ 24,499,458**	**$ 22,879,544**	**$ 18,631,000**	**$ 20,351,369**	**$ 16,189,650**	**$ 15,592,470**	**$ 14,594,850**	**$ -**	**$ -**	**$ 340,744,069**
Additional Significant Projects		**Eastern Service Area Wet Weather**		$ 896,000	$ 2,240,000	$ 4,928,000	$ 31,360,000	$ 22,400,000	$ 22,400,000	$ 112,000,000	$ 138,880,000	$ 112,000,000															$ 447,104,000
																											$ -
		Chester LTCP Implementation - See Note 1		$ 6,960,000	$ 6,960,000	$ 6,960,000	$ 6,960,000	$ 6,960,000	$ 10,440,000	$ 10,440,000	$ 10,440,000	$ 10,440,000	$ 10,440,000														$ 87,000,000
																											$ -
		Buried Pipeline Rehabilitation		$ 3,126,119	$ 3,219,903	$ 3,316,500	$ 3,415,995	$ 3,518,475	$ 3,624,029	$ 3,732,750	$ 3,844,733	$ 3,960,075	$ 4,078,877	$ 4,201,243	$ 4,327,280	$ 4,457,099	$ 4,590,812	$ 4,728,536	$ 4,870,392	$ 5,016,504	$ 5,166,999	$ 5,322,009	$ 5,481,669	$ 5,646,119			$ 89,646,119
																											$ -
		Ammonia Permit Improvements												$ 10,000,000	$ 18,000,000	$ 18,000,000	$ 18,000,000	$ 18,000,000	$ 18,000,000								$ 100,000,000
																											$ -
																											0
		Grand total		***$ 25,944,320***	***$ 27,414,995***	***$ 32,374,301***	***$ 62,658,066***	***$ 41,954,066***	***$ 50,142,442***	***$ 153,589,690***	***$ 172,893,622***	***$ 145,949,849***	***$ 19,945,006***	***$ 18,599,133***	***$ 25,713,661***	***$ 36,469,189***	***$ 45,875,280***	***$ 47,227,995***	***$ 45,749,936***	***$ 23,647,504***	***$ 25,518,368***	***$ 21,511,659***	***$ 21,074,140***	***$ 20,240,969***	***$ -***	***$ -***	***$ 1,064,494,188***
		Cumulative total		**25,944,320**	**53,359,314**	**85,733,615**	**148,391,681**	**190,345,747**	**240,488,189**	**394,077,878**	**566,971,500**	**712,921,349**	**732,866,355**	**751,465,488**	**777,179,149**	**813,648,338**	**859,523,617**	**906,751,612**	**952,501,548**	**976,149,051**	**1,001,667,420**	**1,023,179,079**	**1,044,253,219**	**1,064,494,188**			